

Why the Higgs Boson Matters: Your Questions Answered

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Vivek Sharma explains the massive efforts to discover the Higgs boson using the Large Hadron Collider at CERN in this UCSD-TV program.

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Vivek Sharma explains what physicists hope to achieve with the Large Hadron Collider and why the search is considered one of civilization's greatest quests in this public lecture.

[Vivek Sharma on 2011 Results](#) video from CERN

[Hints of the Higgs](#)

physicists caught glimpses of the new particle back in December 2011.

[Endgame for the Higgs Boson](#) as the Higgs was running out of places to hide.

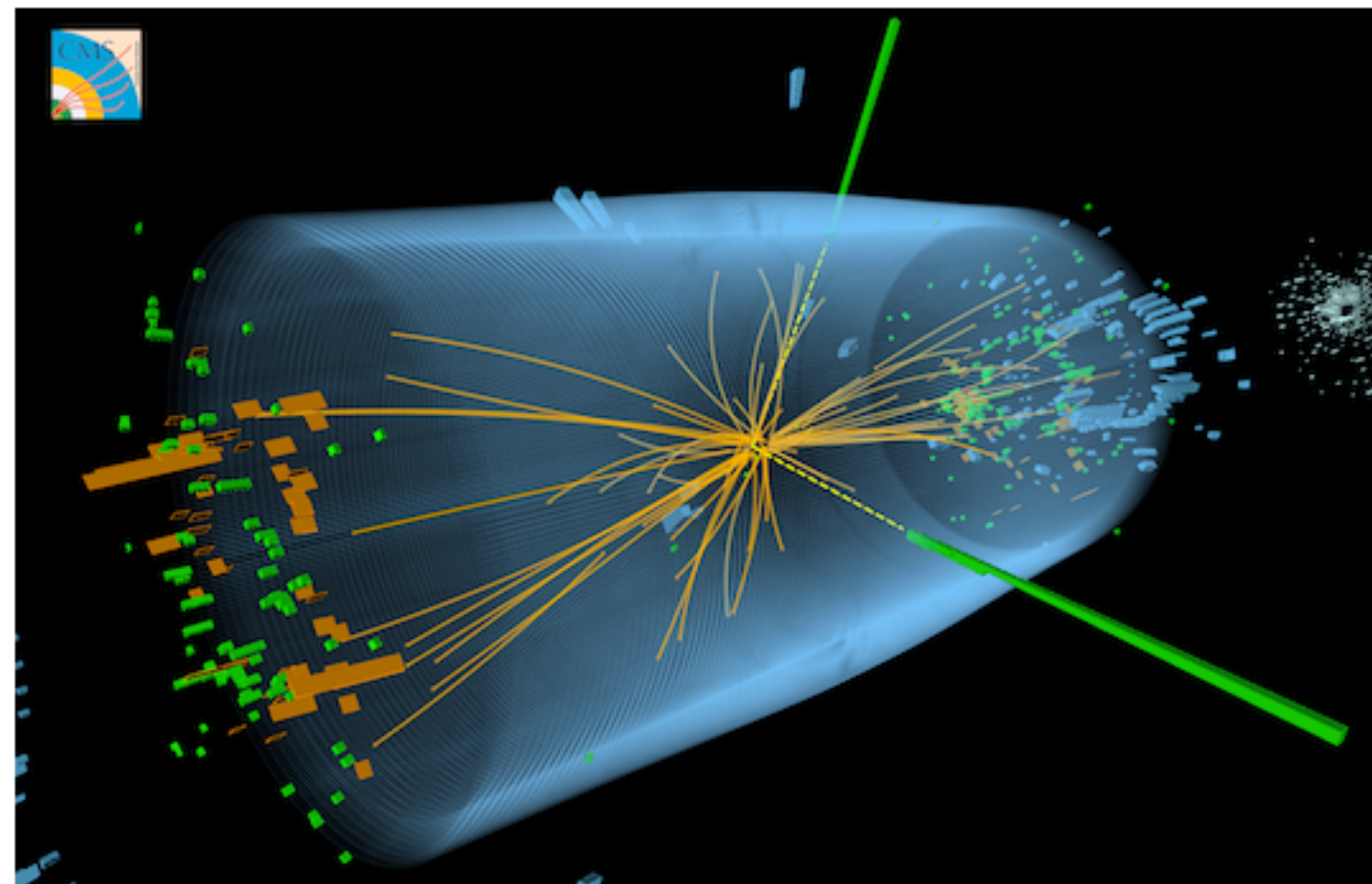
[Physicists Begin Quest for Higgs Particle](#) captures the

Hunt for Higgs reveals new particle

Susan Brown | July 4, 2012

Physicists have observed a new particle that so far matches the signature they expect from the long-sought Higgs boson. But they have not yet collected enough information about the new particle to confirm that it really is the one they seek.

The CMS collaboration, one of two independent teams looking for the Higgs with separate detectors, reported a mass for the new particle of 125 giga electronvolts at a seminar held at CERN July 4. They calculated the chance of that being a false observation at three in 10 million.



In the News

"This is a keystone in our understanding of how the universe works," physics professor Jim Branson told Channel 6.

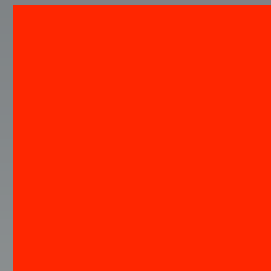
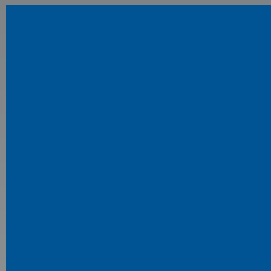
Watch: [UC San Diego Researchers Helped in Search for God Particle](#)

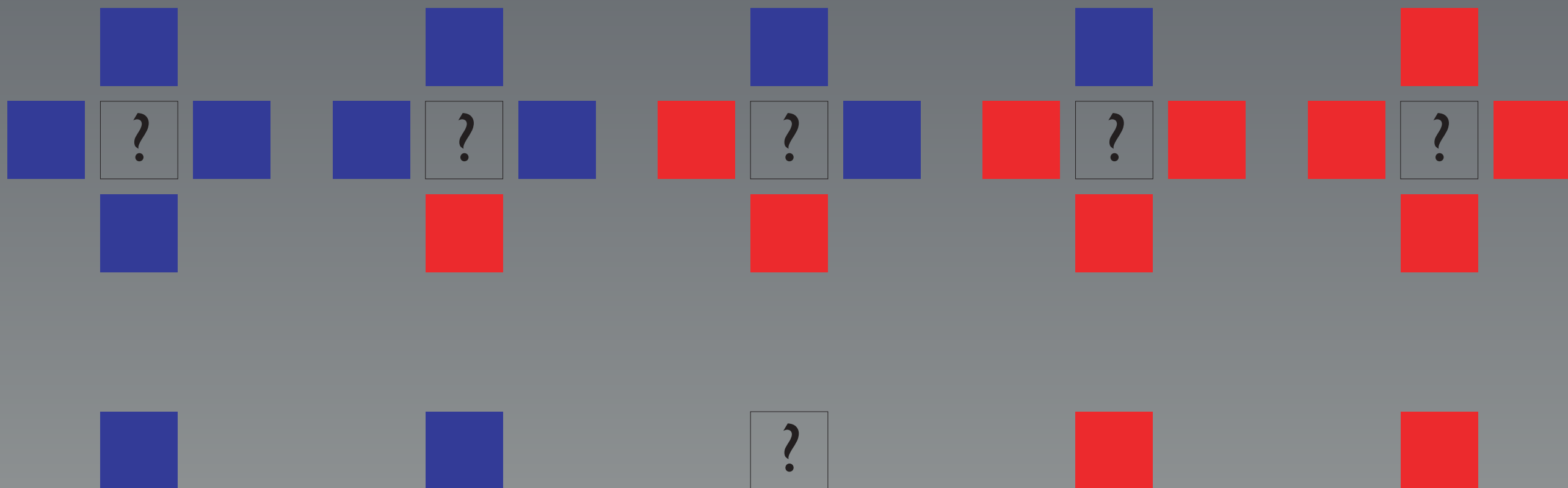
A trillionth of a second after the Big Bang, scientists believe the Higgs field was created. "Once the Higgs transition came, we got mass and could make elements and chemicals and stars," Branson told KPBS. Interviews on Midday Edition and Nightly News Local [Physicists Help Discover the God Particle](#)

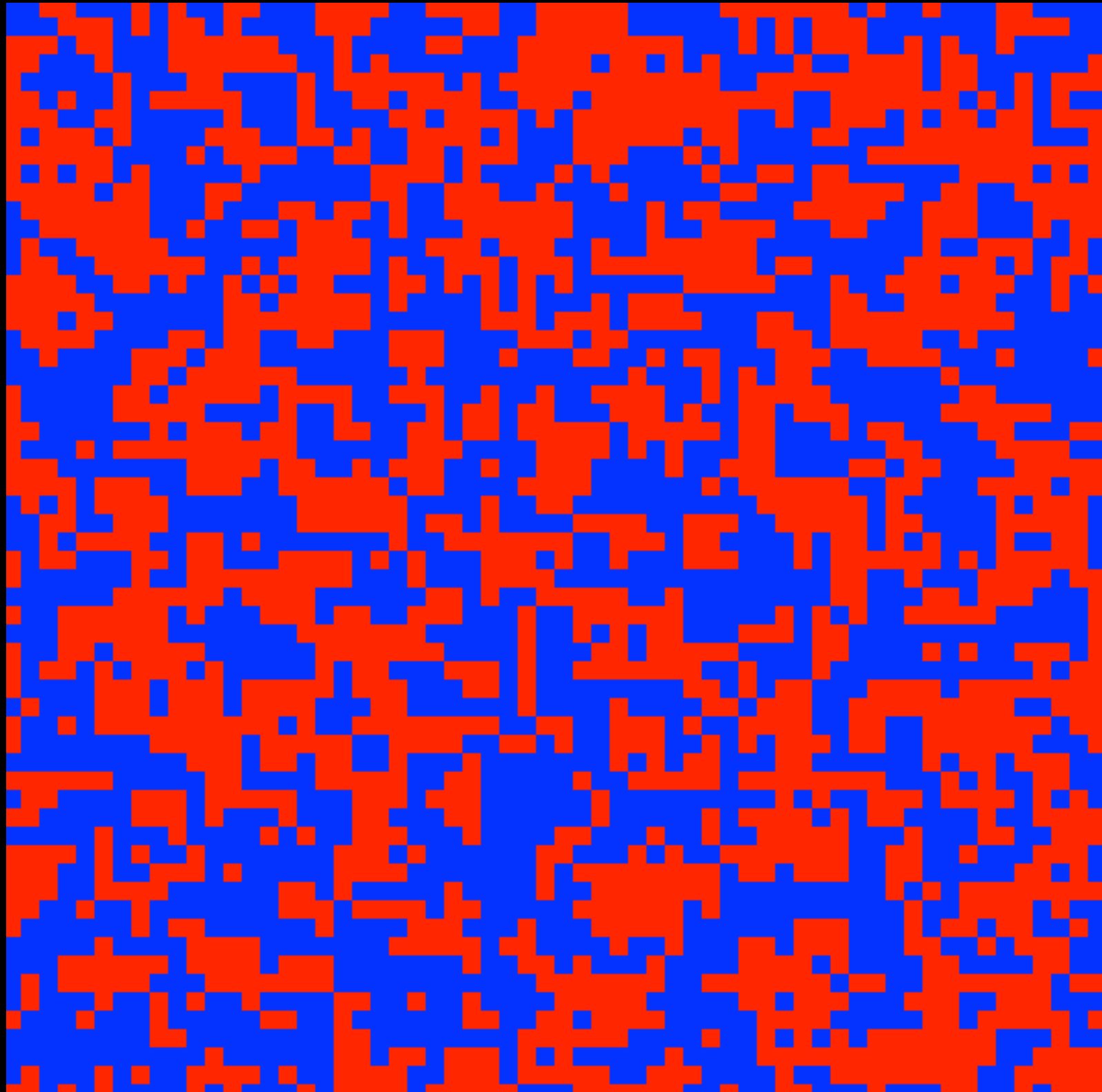
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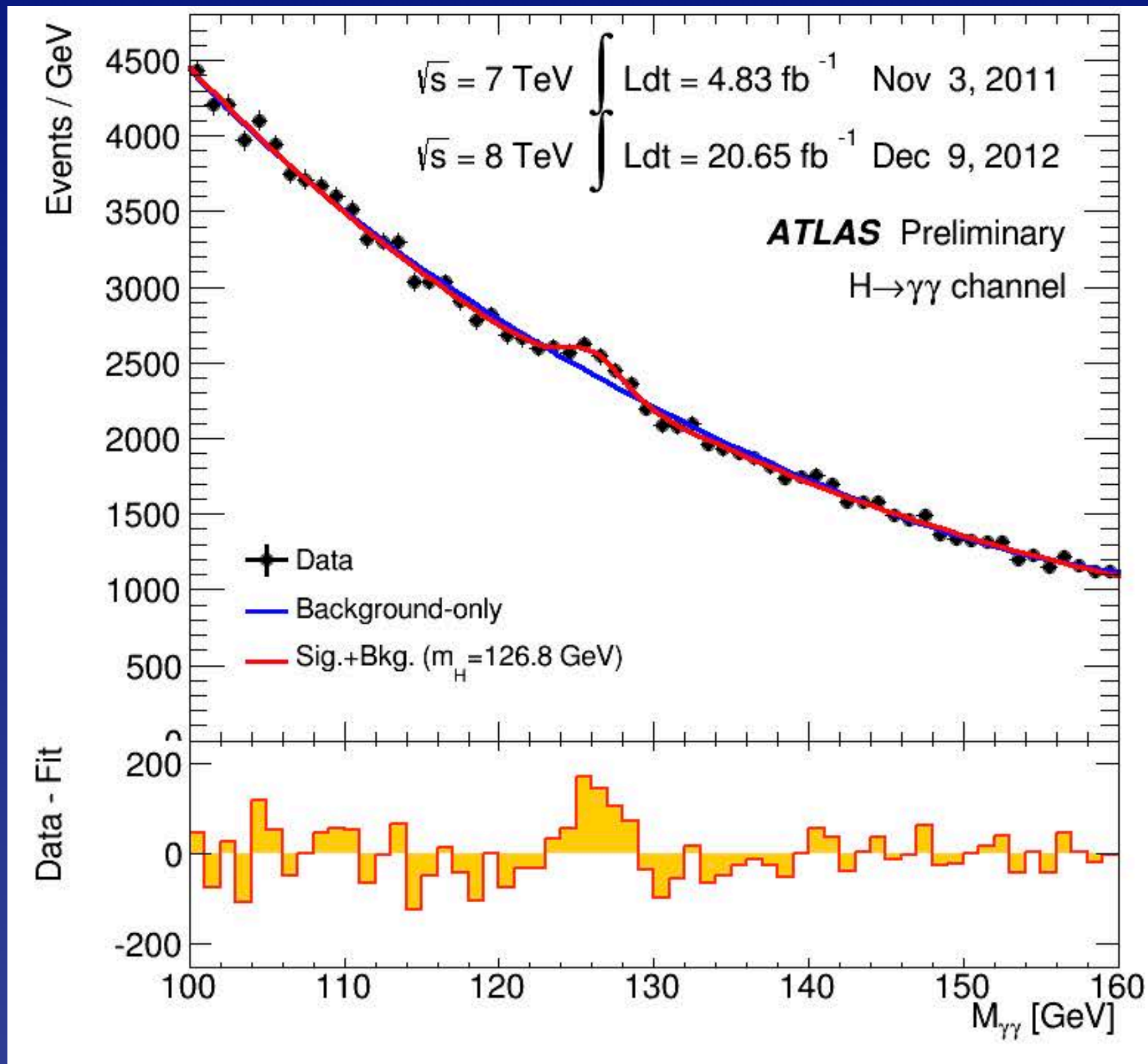




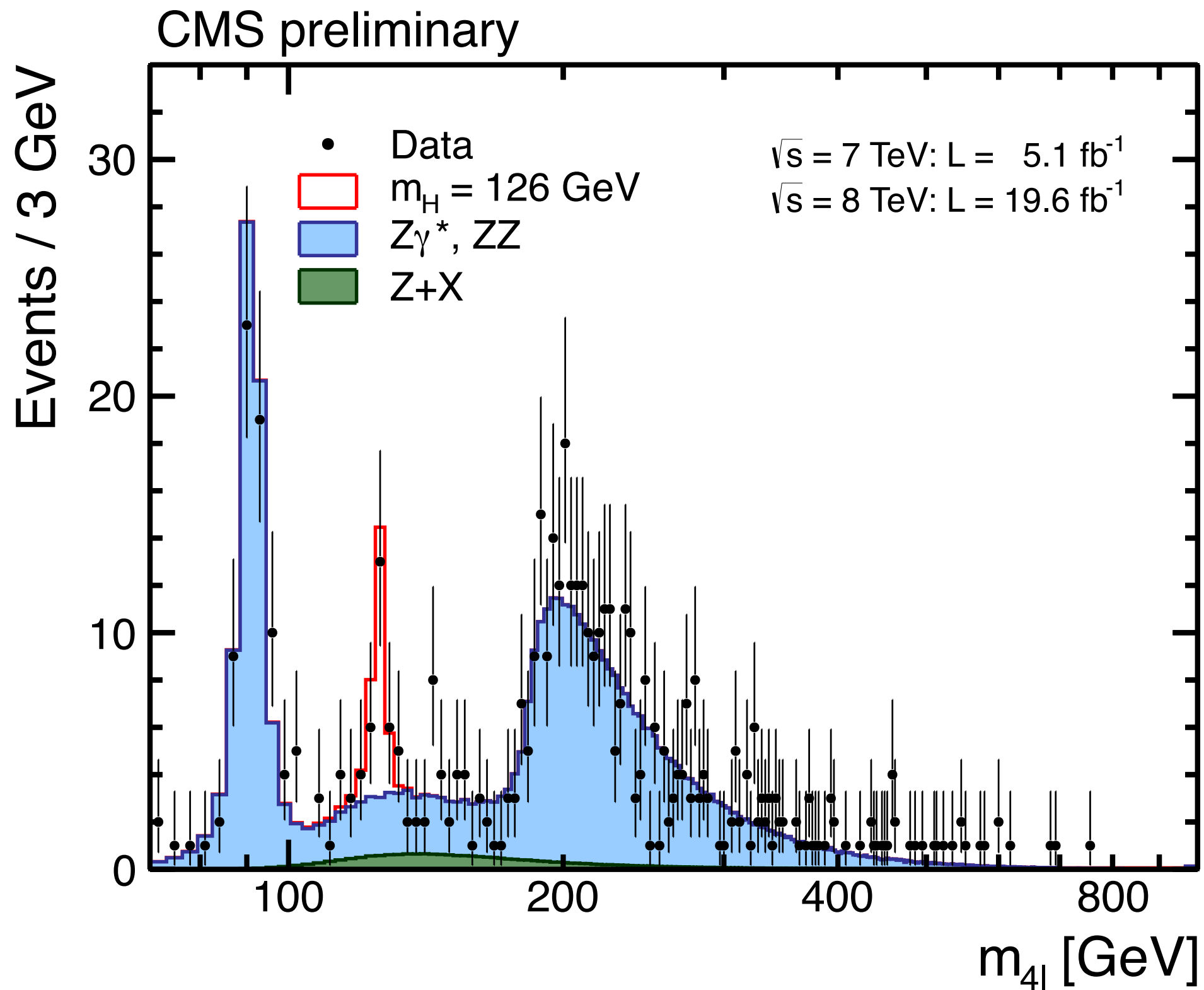


<http://boudin.fnal.gov/applet/IsingPage.html>

Evolution of ATLAS $\gamma\gamma$ Signal



Evolution of CMS 4-lepton Signal





July 4, 2012